Amendment to the claims

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of claims

1. (Currently amended) A process for the production of sulfoalkyl-containing polymers characterized by subjecting a polymer having a side chain containing a leaving group X represented by the structural formula (I):

$$CH_2$$
 n
 CH_2
 X
 (1)

[wherein X is a leaving group, and n is an integer of 0 to 6] to substitution of X with an acylthic group, and then oxidizing the acylthic group into a sulfonic group.

- 2. (Cancelled)
- 3. (Currently amended) The process for the production of sulfoalkyl-containing polymers according to claim 1 or 2,

wherein a leaving group X is Cl, Br, I or a substituent represented by the following formula (ii):

$$-O-S-R_1 \qquad (II)$$

[wherein R_1 is an alkyl group having 1 to 6 carbon atoms, a perfluoro(C_1 - C_3)alkyl group or an aryl group] τ .

4. (Currently amended) The process for the production of sulfoalkyl-containing polymers according to any of claims $1 \pm o + or 3$, wherein an acylthio group represented by the following formula (III):

$$\mathbb{R}_2$$
 \mathbb{H}_2

[wherein R_2 is an alkyl group having 1 to 6 carbon atoms or an aryl group]₇.

5. (Currently amended) The process for the production of sulfoalkyl-containing polymers according to any one of

claims 1 ± 0.4 or 3, wherein the backbone structure of the polymer having a side chain (I) is a polysulfone structure represented by the following formula (IV):

$$\begin{array}{c|c}
-O-Ar-O- & O \\
& S \\
& O
\end{array}$$
(IV)

wherein Ar is
$$(A1), \qquad (A2),$$

$$(A2), \qquad (A3) \qquad or \qquad (A4)$$

6. (Original) A process for the production of sulfomethylated polysulfone, represented by the following formula (V):

[wherein Ar₁ is
$$R_{11}$$
 R_{12} R_{15} R_{16} R_{17} R_{18} R_{13} R_{14} , R_{19} R_{20} R_{21} R_{22} R_{22}

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$$R_{23}$$
 R_{24} R_{25} R_{26} R_{26} R_{31} R_{32} R_{33} R_{34} R_{35} R_{36} R_{37} R_{38} R_{38} R_{39} R

 R_3-R_{38} independently is a hydrogen atom or a sulfomethyl group], characterized by subjecting an aromatic ring of a polysulfone polymers represented by the following formula (IV):

[wherein Ar is
$$(A1)$$
, $(A2)$]
$$(A3) \quad \text{or} \quad (A4)$$
,

to (a) chloromethylation, (b) then subjecting the formed chlorine to acetylthiolation, followed by further oxidation to be converted into a sulfonic group.

7. (Original) An acetylthiomethyl-containing polysulfone, represented by the following formula (VI):

wherein Ar₁' is
$$R_{11}'$$
 R_{12}' R_{15}' R_{16}' R_{17}' R_{18}' R_{18}' R_{13}' R_{14}' R_{19}' R_{20}' R_{21}' R_{22}' R_{22}' R_{23}' R_{24}' R_{25}' R_{26}' R_{26}' R_{30}' R_{31}' R_{32}' R_{33}' R_{34}' R_{34}' R_{35}' R_{36}' R_{37}' R_{38}' R_{38}' R_{38}'

 R_3 ' to R_{38} ' independently is a hydrogen atom, or CH_2 S Me

8. (New) The process for the production of sulfoalkyl-containing polymers according to claim 4, wherein the backbone structure of the polymer having a side chain (I) is a polysulfone structure represented by the following formula (IV):

wherein Ar is
$$(A1)$$
, $(A2)$

$$(A3)$$
 or $(A4)$